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1 123 220 (D 298211 II / 63c)

## 1

The invention relates to a padded seat for motor vehicles, in particular passenger vehicles, having pads or parts thereof which are designed as channels and distributors for warm air supplied by a heating unit.

Primarily cold air is present in the pads of vehicle seats, in particular in the rear seat cushions and rear seat backs of passenger vehicles, which heats up slowly. In addition, rear seat cushions and rear seat backs of passenger vehicles are generally bordered by cold walls which consistently keep the air inside the rear cushions and seat backs cooler than their surroundings.

It is known to connect the pads of a seat to a line which may be supplied with warm air. In the known seat a rigid line is connected to the bottom of the seat, which is fixedly attached to an airtight base. Thus, it is not possible to adjust the known seat. Furthermore, for installation of a heating unit, due to the confined space it is difficult to accommodate beneficial hose lines for heating the seats and seat backs.

The object of the invention is to eliminate these disadvantages. According to the invention, a heating unit is provided on the rear side of the seat back which removes the air which is to be heated from the trunk or from the region of the vehicle interior behind the seat back, and blows the air directly into the interior of the pad for the seat back. As a result of this measure, any connecting lines to rigid parts of the supporting framework may be omitted, so that besides the considerable simplification in design, the position of the seat designed according to the invention may be modified in any given manner.

In a further embodiment of the invention, for seats in which the interior spaces of the seat back and the seat cushion are connected to one another, a vane is provided in the region of the gap between the seat cushion and the seat back for regulating the air flowing from the seat back into the seat cushion. The seat cushions and/or seat backs may advantageously have lateral air inlet and air outlet openings situated opposite from the vehicle doors or vehicle walls. Lastly, for summertime temperatures the heating unit designed according to the invention may also be advantageously used as a ventilation unit by switching off the heat exchanger.

## Padded seat for motor vehicles

Patented for:

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## 2

One exemplary embodiment of the invention is illustrated in one figure.

The exemplary embodiment of the invention is directed to a rear padded seat comprising a rear seat cushion 1 and a rear seat back 2. The rear seat is illustrated inside a passenger vehicle, the parts of which that are important to the invention being shown in cross section parallel to the direction of travel.

Attached to the roof 3 of the passenger vehicle is a rear window 4, to which a rear storage panel 5 is connected. The floorboard 6 of the vehicle, a panel 7 on which the front seat cushion 1 rests, and the floor 8 of the trunk are cooled by cold air (arrow 9). As a result of this cooling, the air inside the cavities in the pads 1 and 2 is kept at a relatively low temperature, so that in particular the back of the passenger seat 10 is continuously exposed to cool contact surfaces.

According to the exemplary embodiment of the invention, attached to the rear side 11 of the seat back 2 is a heating unit, collectively denoted by reference numeral 12, which supplies warm air for the padded seat. The interior spaces of pads 1 and 2 are used as elements which conduct warm air. According to the exemplary embodiment, by means of a ventilator 15 air is blown from the trunk 13, corresponding to arrow 14, and through a heat exchanger 16, and then enters the interior of the seat back directly through an opening 17.

The air flow is distributed according to arrows 18. In addition, part of the air flows into the interior of the seat cushion 1 corresponding to arrow 19, and from there enters the floor space 22 through an opening 20, corresponding to arrow 21. The quantity of air which flows from the interior of the seat back 2 into the interior of the seat cushion 1 according to arrow 19 is regulated by a vane 23 situated in the region of the border between the seat back 2 and the cushion 1. The upwardly branching air stream 25 flows to the inner side of the rear window 4 via an upper opening designed as a pipe connection 24. In this manner the rear window 4 is defrosted and kept free of condensation.

The passage through the cavities inside pads 1 and 2 may be facilitated by the relative motion of the occupants 10 relative to the vehicle. For high outside temperatures the heat exchanger 16 may be switched off so that the entire device serves as a ventilation unit. To allow a portion of the air to exit through the pad coverings 26, these may advantageously be provided with perforations.

For the features contained in the subclaims, protection is requested only in conjunction with the features of the main claim.

Documents considered:  
US Patent 2,022,959

